Moving
Rehabilitation
Forward™

Vectra GENISYS®

User Manual

Model 2758
Vectra Genisys® Laser Module

CHATTANOOGA GROUP
ISO 13485 Certified

TOC

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FOREWORD

This manual has been written for the operators of the Vectra Genisys Laser Module. It contains general instructions for operation, precautionary instructions, and maintenance recommendations. For all other information (i.e., electrotherapy, battery pack, remote, ultrasound, etc.) concerning your Vectra Genisys Therapy Systems, consult the user manual shipped with those products. In order to obtain maximum life and efficiency from your Vectra Genisys Laser Module, and to assist in the proper operation of the unit, read and understand this manual thoroughly.

The specifications put forth in this manual were in effect at the time of publication. However, owing to Chattanooga Group's policy of continuous improvement, changes to these specifications may be made at any time without obligation on the part of Chattanooga Group.

Before administering any treatment to a patient, you should become acquainted with the operating procedures, as well as the indications, contraindications, warnings, and precautions. Consult other resources for additional information regarding the application of therapeutic laser. Users of this device should refer to CAN/CSA-Z386-92: Laser Safety in Health Care Facilities or ANSI Z-136.3, 1996: American National Standard for the Safe Use of Lasers in the Health Care Environment.

Product Description

The Vectra Genisys Laser Module, designed and manufactured by Chattanooga Group, offers a new dimension in clinical laser light therapy made possible by advanced software design and digital signal processing.

When you add a Laser Module to your existing Vectra Genisys main unit (which may already contain electrotherapy, ultrasound, or both) the result is a unit with extraordinary versatility based on simplicity of operation.

Effectiveness of this treatment is dependent upon correct use. If treatment times are exceeded, the therapy may not result in positive clinical outcomes.

This equipment is to be used only under the prescription and supervision of a licensed practitioner.

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The following features are available on the Vectra Genisys Laser Module:

- **Clinical Indications**
  An efficient approach for setting up a treatment using preset parameters.
- **Real Time Feedback**
  This feature provides a measured and monitored output system that adjusts the dosage delivered to the patient.
- **Electronic Signature™**
  Automatically calibrate the system to any Vectra Genisys Laser applicator.
- **Ergonomic Applicators**
  A new ergonomic design that offers a 20 degree contour in the applicator hand grip. This ergonomic extra will help deliver uniform laser light therapy with greater clinician comfort.
- **Clear LCD**
  Guide the operator through the setup process providing continuous feedback about treatment settings. Gives you optimal visibility during attended procedures.
- **User Protocols**
  User protocols allow you to set, save, and change the parameters of each program (protocol) in order to tailor it to meet your patients' specific needs.
- **Cooling Function**
  The software contains a cooling function that forces the user to cool the laser clusters prior to the next usage.

Precautionary Instructions

The precautionary instructions found in this section and throughout this manual are indicated by specific symbols. Understand these symbols and their definitions before operating this equipment. The definition of these symbols are as follows:

=CAUTION- Text with a "CAUTION" indicator will explain possible safety infractions that could have the potential to cause minor to moderate injury or damage to equipment.

=WARNING- Text with a "WARNING" indicator will explain possible safety infractions that will potentially cause serious injury and equipment damage.

=DANGER- Text with a "DANGER" indicator will explain possible safety infractions that are imminently hazardous situations that would result in death or serious injury.

NOTE: Throughout this manual "NOTE" may be found. These Notes are helpful information to aid in the particular area or function being described.

⚠ CAUTION

- Read, understand, and practice the precautionary and operating instructions. Know the limitations and hazards associated with using any laser device. Observe the precautionary and operational decals placed on the unit.
- Do not operate this unit when connected to any unit other than Chattanooga Group devices.
- Do not operate this unit in an environment where other devices are being used that intentionally radiate electromagnetic energy in an unshielded manner. Portable and mobile RF communications equipment can affect Medical Electrical Equipment.
- DO NOT use sharp objects such as a pencil point or ballpoint pen to operate the buttons on the Operator Interface as damage may result.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous exposure to laser light energy.
- Handle the applicator with care. Inappropriate handling of the applicator may adversely affect its characteristics.
- Inspect applicator cables and associated connectors before each use.
- This unit should be operated in temperatures between 59 to 85°F (15 to 40°C), and transported and stored in temperatures between - 20 to 110°F (7 to 43°C), with relative humidity ranging from 30% - 60%.
- DO NOT disassemble, modify, or remodel the unit or accessories. This may cause unit damage, malfunction, electrical shock, fire, or personal injury.
- Failure to use and maintain the Vectra Genisys Laser Module and its accessories in accordance with the instructions outlined in this manual will invalidate your warranty.

⚠ CAUTION

- Do not use accessories other than those supplied with the unit, or recommended by Chattanooga Group. The safety of other products has not been established, and their use could result in injury to the patient and degrade minimum safety.
- Laser equipment not in use should be protected against unqualified use.
- DO NOT remove the cover. This may cause unit damage, malfunction, electrical shock, fire, or personal injury. There are no user-serviceable parts inside the unit. If a malfunction occurs, discontinue use immediately and consult the dealer for repair service.
- DO NOT permit any foreign materials or liquids to enter the unit. Take care to prevent any foreign materials including, but not limited to, inflammables, water, and metallic objects from entering the unit. These may cause unit damage, malfunction, electrical shock, fire, or personal injury.
- If you have difficulty operating the unit after carefully reviewing this users manual, contact your Chattanooga Group dealer for assistance.
- U.S. Federal law restricts this device to sale by, or on the order of, a physician or licensed practitioner.
- Use of parts or materials other than Chattanooga Group's can degrade minimum safety.

⚠ WARNING

- Before each use, clean the plastic lens with NOVUS® Polish System. Contact Novus at: www.novuspolish.com. Make certain to apply with a clean cloth. Failure to clean the lens between patient therapy sessions could cause laser light beam fragmentation, which may reduce the effectiveness of the treatment.
- This device should be used only under the continued supervision of a licensed practitioner.
- Dispose of all products in accordance with local and national regulations and codes.
- This equipment is not designed to prevent the ingress of water or liquids. Ingress of water or liquids could cause malfunction of internal components of the system and therefore create a risk of injury to the patient.
- Remove the Laser Applicator by pulling the cable connector only. DO NOT remove by pulling the cable.

WARNING

- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous conditions causing damage to the module and applicator.
- Care must be taken when operating this unit adjacent to or stacked with other equipment. Potential electromagnetic or other interference could occur to this or other equipment. Try to minimize this interference by not using other equipment (i.e. cell phones, etc.) in conjunction with it.
- Use only accessories that are specially designed for this unit. Do not use accessories manufactured by other companies on this unit. Chattanooga Group is not responsible for any consequence resulting from using products manufactured by other companies. The use of other accessories or cables may result in increased emissions or decreased immunity of this unit.
- Use of other accessories other than those specified may result in increased emissions and decreased immunity.
- If laser is not in use, power off unit or remove applicator.
- This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. Harmful interference to other devices can be determined by turning this equipment on and off, try to correct the interference using one or more of the following: Reorient or relocate the receiving device, increase the separation between the equipment, connect the equipment to an outlet on a different circuit from that to which the other device(s) are connected and/or consult the factory field service technician for help.
- Be sure to read all instructions for operation before treating a patient.
- Do not drop the applicator or module on hard surfaces.
- Do not submerge the applicator or module in water. All of these conditions will damage the applicator and module. Damage resulting from these conditions is not covered under the warranty.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous exposure to laser light energy.
- Make certain that the unit is electrically grounded by connecting only to a grounded electrical service receptacle conforming to the applicable national and local electrical codes.
- This device should be kept out of the reach of children.
- Some patients are more sensitive to laser output (i.e., patients taking medications that increase sensitivity to light) and may experience a reaction similar to a heat rash.

⚠ DANGER

- Equipment not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide.
- The solvents of adhesives and flammable solutions used for cleaning and disinfecting should be allowed to evaporate before the unit is used.
- DO NOT connect the unit to an electrical supply without first verifying that the power supply is the correct voltage. Incorrect voltage may cause unit damage, malfunction, electrical shock, fire, or personal injury. Your unit was constructed to operate only on the electrical voltage specified on the Voltage Rating and Serial Number Plate. Contact your Chattanooga Group dealer if the unit is not properly rated.

- Laser protective eyewear should be worn by the operator and patient to block infrared light energy from the eyes during treatment.
- DO NOT point the laser light beam directly into human or animal eyes. The lens of the eye does not detect the invisible, coherent laser light beams, potentially resulting in permanent retinal damage.

- This unit is considered to be a Class 3B laser product and thus emits visible and invisible laser radiation (IR). Avoid direct eye exposure to the laser light beam. The symbol to the left is located on the back of the applicator and indicates the active radiant surface (the area on the applicator that emits infrared laser energy and the direction of the beam of light).
- When the unit is on, not all wavelengths are visible to the naked eye. Therefore, when performing any operational or functional check, always wear Chattanooga Group laser protective eyewear.

OVERVIEW OF LASER LIGHT THERAPY

The light energy absorbed into the patient's tissue triggers biological changes at a cellular level to provide topical heating for temporary increase in local blood circulation; temporary relief of minor muscle and joint aches, pains, and stiffness; relaxation of muscles and relief of muscle spasms; and temporary relief of minor pain and stiffness associated with arthritis. The dose and frequency of treatment can be adjusted to produce the desired effect.

Low Level Laser Light differs from ordinary light in four ways. Briefly, it is much more intense, directional, monochromatic and coherent. Most lasers consist of a column of active material with a partly reflecting mirror at one end and a fully reflecting mirror at the other. The active material can be solid (ruby crystal), liquid or gas (HeNe, CO_2 etc.).

Low Level Laser Light has unique physical properties that no ordinary light has. This is the key to why laser light is so effective compared to other kinds of light in healing. There are more than 100 double-blind positive studies confirming the clinical effect of LLLT (Low Level Laser Light Therapy). More than 2500 research reports are published. The book Laser Therapy - clinical practice and scientific background by Jan Tunér and Lars Hode is a good reference guide for literary documentation.

There is no exact limit with respect to the penetration of the light. The light gets weaker the further from the surface it penetrates. There is, however, a limit at which the light intensity is so low that no biological effect of the light can be registered. This limit, where the effect ceases, is called the greatest active depth. In addition to the factors mentioned above, this depth is also contingent on tissue type, pigmentation, and dirt on the skin. Fat tissue is more transparent than muscle tissue.

Some laser applicators may cause a noticeable heat sensation, particularly in hairy areas and on sensitive tissues such as lips.

Pressing the button next to the

icon displays an overview of laser light therapy, a list of available treatment options, and a synopsis of the available parameters.

OVERVIEW OF LASER LIGHT THERAPY-COMMON TERMS

Applicator - The hand held assembly used to deliver laser energy. The applicator includes the laser head, diode, and related electronics.

Collimating - The shape of the laser light beam. While neither focused nor dispersed, this laser light beam resembles a column when applied from the unit through the applicator.

Continuous Mode – The output of the laser is not interrupted during the treatment time.

Dosage – A measure of the intensity of the laser light energy over the treatment area. The unit of measure is Joules or Joules/cm^2.

Energy – Measured in Joules, energy equals the treatment time multiplied by the power. More importantly, Energy Density equals the power output multiplied by the treatment time, and divided by the spot size (cm^2). This gives a more specific measurement of energy delivered.

Frequency – Pulsed frequencies are selectable from 8 to 10,000 Hz.

Laser Head – The clear lens face of the applicator that contacts the patient's skin. It consists of laser diodes with or without LED's or SLD's (depending on the applicator).

Power – Measured in Watts (W), power wattage is directly proportional to the treatment time and penetration of the laser energy. High-powered diodes will reduce patients' treatment time and give a higher amount of energy at a deeper depth. Power output can be either continuous or pulsed.

Power Density - Ratio of power divided by treatment time.

OVERVIEW OF LASER LIGHT THERAPY - COMMON TERMS (CONTINUED)

Pulsed Mode – This is the ratio of the "On" time to "Total" time of the cycle, expressed as a percentage. The lower the percentage, the lower temporal average intensity. 100% is continuous laser light. Pulsed Mode is 90% on and 10% off.

NOTE: Pulsed Mode is also equivalent to Duty Cycle.

Spot Size - Area of the LED, SLD, or laser beam when it leaves the face of the lens.

Treatment Area - Area of tissue affected by LED, SLD, or laser when wavelength, divergence angles, and depth of penetration are factored. This is the area used to calculate dosage.

Treatment Time – Measured in seconds, it is the suggested time per laser point that therapy is given.

Wavelength – Measured in nanometers (nm), wavelength is the key component in obtaining effective therapy as different wavelengths bring about different physiological effects. Superficial skin disorders have been found to be most effectively treated at wavelengths 600-700 nm, while deeper muscular or ligament lesions and joint conditions are better treated at higher wavelengths of 700-1000 nm.

Indications for Laser

The Vectra Genisys Laser Module is indicated to provide topical heating for the following:

- temporary increase of local blood circulation.
- temporary relief of minor muscle and joint aches, pains, and stiffness.
- temporary relaxation of muscles.
- temporary relief of muscle spasms.
- temporary relief of minor pain and stiffness associated with arthritis.

Adjunctive Use

The Vectra Genisys Laser Module may be used adjunctively for the following:

- symptomatic relief of minor pain
- minor muscle and joint pain
- minor muscle spasms
- relief of associated minor stiffness and pain associated with arthritis
- promoting relaxation of muscles

Contraindications

The Vectra Genisys Laser Module should NOT be used:

- where analgesia may mask progressive pathology, and where the practitioner would normally avoid the use of any other analgesia in order to retain the beneficial aspects of pain.
- for direct aim into the eyes of humans or animals.
- over areas injected with steroids in the past 2-3 weeks.
- over areas that are suspicious or contain potentially cancerous tissue.
- over areas of active hemorrhage.
- over a pregnant uterus.
- over the neck (thyroid or carotid sinus region) or chest (vagus nerve or cardiac region of the thorax).
- directly over areas with open wounds, unless covered with a clear protective barrier.
- treatment over sympathetic ganglia.
- for symptomatic local pain relief unless etiology is established or unless a pain syndrome has been diagnosed.
- on patients suspected of carrying serious infectious disease and or disease where it is advisable, for general medical purposes, to suppress heat or fevers.

- over or near bone growth centers until bone growth is complete.
- over the thoracic area if the patient is using a cardiac pacemaker.
- over or applied to the eye.
- on ischemic tissues in individuals with vascular disease where the blood supply would be unable to follow the increase in metabolic demand and tissue necrosis might result.

Additional Precautions

Additional precaution should be used when the laser is used on patients with the following conditions:

- Over an area of the spinal cord following a laminectomy, i.e., when major covering tissues have been removed.
- Over anesthetic areas.
- On patients with hemorrhagic diatheses.

⚠ DANGER

Patients with an implanted neurostimulation device must not be treated with or be in close proximity to any shortwave diathermy, microwave diathermy, therapeutic laser diathermy or laser diathermy anywhere on their body. Energy from diathermy (shortwave, microwave, ultrasound, and laser) can be transferred through the implanted neurostimulation system, can cause tissue damage and can result in severe injury or death. Injury, damage, or death can occur during diathermy therapy even if the implanted neurostimulation system is turned "off."

Preventing Adverse Effects

Perform the following procedures to avoid the negative effects of laser light therapy.

Patient Susceptibility

⚠ WARNING

Some patients are more sensitive to laser output (i.e., patients taking medications that increase sensitivity to light) and may experience a reaction similar to a heat rash.

Be sure to inspect the treatment area during and following treatment, and discontinue if an adverse reaction does occur.

Output Power

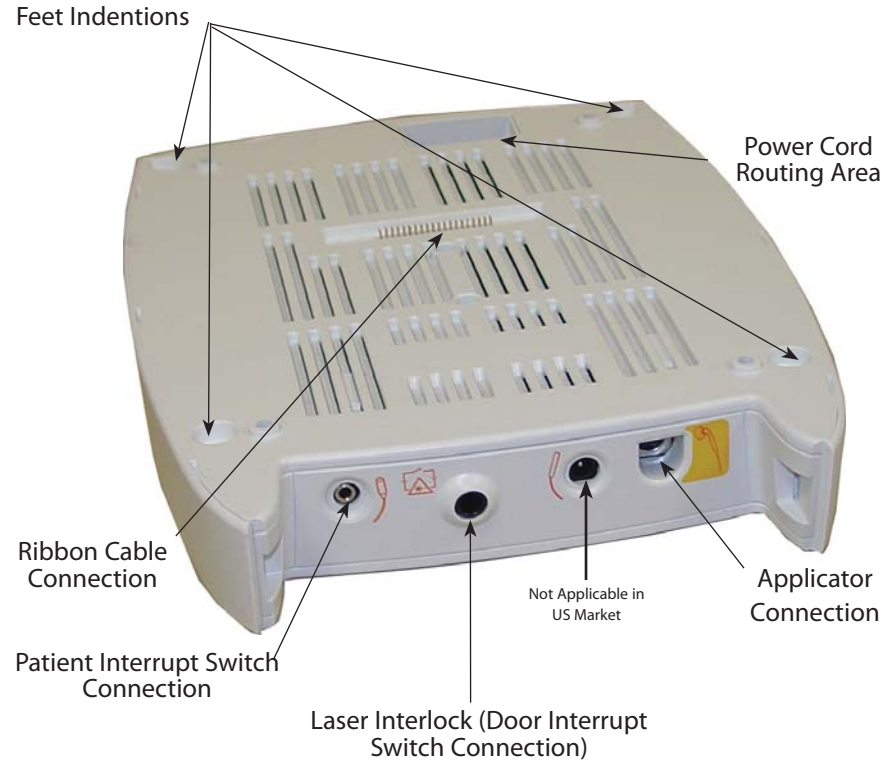
Higher output levels have a greater potential for patient discomfort. Choose a lower dosage to reduce output or select a pulsed duty cycle to decrease patient discomfort.

Factors that Affect Treatment

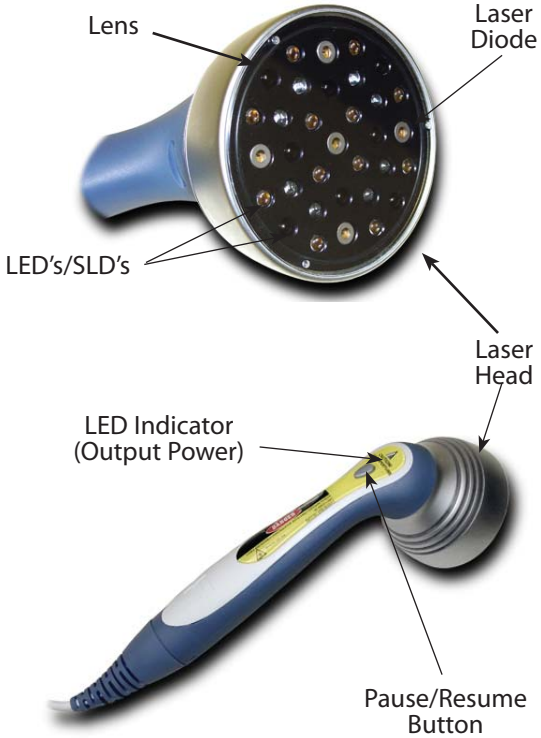
The following factors may affect laser treatment:

- Color of skin (light or dark)
- Age of lesion
- Depth of lesion
- Sensitivity of patient
- Type of tissue
- Medications that increase sensitivity to light

MODULE



APPLICATOR



Feet Indentions
These indentions retain the rubber feet of the unit. This allows the module to align and rest directly underneath the unit.

Ribbon Cable Connection
A ribbon cable connects the unit to the module at this location on the module in order to transfer data from the laser module to the unit.

Patient Interrupt Switch Connection (Optional Accessory)
As a safety measure and to minimize any apprehension, it is recommended that you always allow the patient to hold the Patient Interrupt Switch during laser light therapy. When the red button on the end of the switch is pressed, a beeper sounds and the treatment is paused. Parameters can then be verified and changed (if necessary) and therapy can be resumed.

Use of the Patient Interrupt Switch should always be explained to the patient before starting treatment. Patients will feel safer knowing they can stop the treatment if necessary.

The Patient Interrupt Switch is very sensitive. Explain this to the patient when using it in order to prevent unnecessary interruptions in treatment.

Laser Interlock (Door Interrupt Switch Connection)
This option allows you to set up a switch (similar to the patient interrupt switch) that interrupts treatment when the door of the treatment room is opened during a therapy session.

Applicator Connection
This port serves as the connection point between the module and the applicator.

Power Cord Routing Area

This hollow area on the back of the module allows you to feed the power cord from the unit through the module and out to the electrical outlet.

Lens
This clear lens acts as a shield to protect the patient's skin.

LED's/SLD's
These light emitting diodes generate different wavelengths of light that allow the user to treat topical or surface symptoms.

Laser Diode
This mechanism generates different wavelengths of light that allow the user to treat various, deeper penetrating symptoms.

Laser Head
This aluminum housing located on the end of the applicator accommodates the lens, laser diodes, LED's, SLD's, and their associated electronics.

Pause/Resume
Use this button to begin or pause the treatment session. To restart therapy, press the PAUSE button.

LED Indicator (Output Power)
This orange light illuminates when laser energy is being distributed by the applicator.

MODULE SPECIFICATIONS

DIMENSIONS

Length ..... 10.95 in (27.8 cm)
Height ..... 8.35 in (21.2 cm)
Width ..... 1.65 in (4.2 cm)

WEIGHT

Standard Weight ..... 2.9 lbs (1.3 kg)

POWER

Input ..... 120 - 240 V - 1.0 A, 50/60 Hz 75 W Max
Mode of Operation ..... Continuous
Electrical Class ..... CLASS 1
Electrical Type (Degree of Protection) ..... TYPE B

Output Type ..... Infrared Lamp (laser)
Laser Class 3B

Complies with 21CFR 1040.10 & 1040.11
IEC/UL/EN 60601-1, 60601-1-2, and 60601-2-22
IEC 60825-1:2001, CAN/CSA C22.2 No. 601.1-M90 w/A2

Each module is shipped with four screws, laser protective eyewear, a Patient Interrupt Switch, this manual, and an extended front access panel.

For a complete list of standard and optional accessories, see page 48.

LASER TECHNICAL SPECIFICATIONS

Duty Cycles

Pulsed 90%

Continuous 100%

Pulse Frequencies ..... 8 Hz - 10000 Hz
..... and continuous.

Wavelengths..... 670-950 nm (dependent on applicator)

Output ..... 100-1440 mW (dependent on applicator)

Output accuracy ..... +/- 20% of nominal

DESCRIPTION OF DEVICE MARKINGS

The markings on the unit are assurance of its conformity to the highest applicable standards of medical equipment safety and electromagnetic compatibility. One or more of the following markings may appear on the device:

Standards:
Classified by Intertek Testing Services NA Inc.
Complies with 21CFR 1040.10 & 1040.11
IEC/UL/EN 60601-1, 60601-1-2, and 60601-2-22
CAN/CSA C22.2 No. 601.1-M90 w/A2

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Refer to ACCOMPANYING DOCUMENTS .....

Equipment capable of delivering output values in excess of 10mA r.m.s. or 10V r.m.s. averaged over any period of 5s.....

Type B Equipment.....

This unit is considered to be a Class 3B laser product and thus emits visible and invisible laser radiation (IR). Avoid direct eye exposure to the laser light beam. The symbol to the right is located on the back of the applicator and indicates the active radiant surface (the area on the applicator that emits infrared laser energy and the direction of the beam of light). .....

LASER APPLICATOR TECHNICAL SPECIFICATIONS

For all single diode and cluster laser and LED applicators, the expected increase in the measured quantities after manufacture added to the values measured at the time of manufacture is ±20%.

The new software incorporates a cooling function that forces the user to cool the laser clusters prior to the next treatment. The software will calculate the cooling time needed when treatment times exceed 3 minutes per application. For a 3 minute treatment, it will force a 15 second cool down period before the next treatment can begin. For a 4 minute treatment, it will force a 2 minute cool down period before the next treatment can begin. The software extrapolates for times between 3 and 4 minutes.

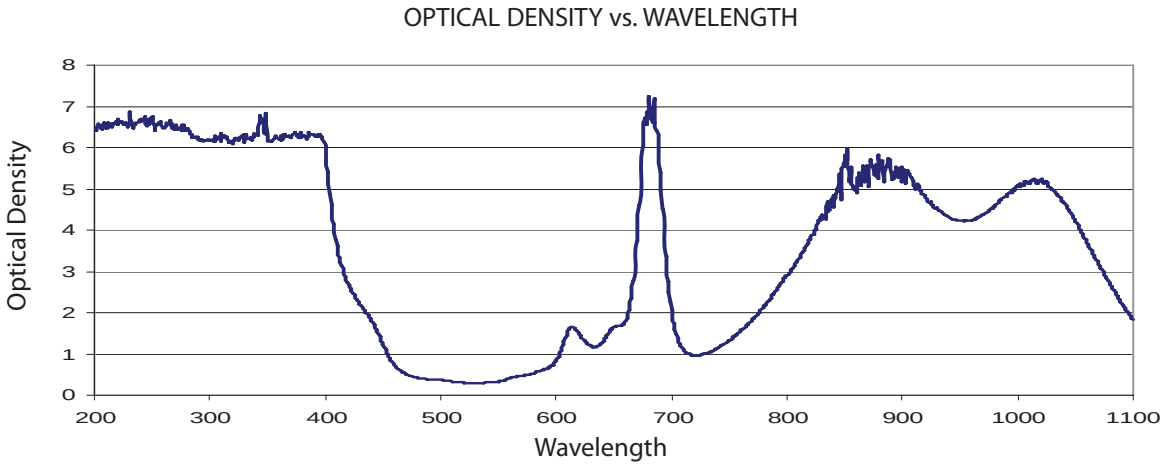
A message will display on the screen informing the user that the probe is cooling down and the time period required. After 5 seconds, this message will disappear. If the user attempts to use the probe before the cool down period is completed, the message will re-display to signify that the applicator is still in cool down mode. After the cool down period is complete, a message displays that informs the user that the unit is ready for use.

Single Diode Applicators									
Applicator	Wavelength (nm)	Output Power (mW)	Power Density (W/cm^2)	Treatment Area (cm^2)	Diode Type	Nominal Ocular Hazard Distance (NOHD-in meters for AEL<.0175 W/cm^2)	Divergance a1 (rad)	Divergance a2 (rad)	Spot Size (cm^2)
850 nm 100 mW Laser	850	100	1.43	0.07	GaAlA	6.2218	0.097	0.54334	0.012
850 nm 150 mW Laser	850	150	2.14	0.07	GaAlA	8.8	0.097	0.54334	0.012
850 nm 200 mW Laser	850	200	2.85	0.07	GaAlA	12.44	0.097	0.54334	0.0376
820 nm 300 mW Laser	820	300	0.606	0.495	GaAlA	15.24	0.097	0.54334	0.242

LASER APPLICATOR TECHNICAL SPECIFICATIONS (CONTINUED)

Cluster Diode Applicators									
Applicator	Output Power (mW)	Power Density (W/cm^2)	Contact Area (cm^2)	Diode Type	Diode Specifications	Nominal Ocular Hazard Distance (NOHD-in meters for AEL<.0175 W/cm^2)	Divergance a1 (rad)	Divergance a2 (rad)	Spot Size (cm^2)
9 Diode Cluster laser 540 mW	540	0.072	7.55	GaAlAs SLD LED	Four 670 nm (10 mW) LED Five 850 nm (100 mW) Laser	6.2218	0.097	0.54334	0.64 0.06
9 Diode Cluster laser 1040 mW	1040	0.138	7.55	GaAlAs SLD LED	Four 670 nm (10 mW) LED Five 850 nm (200 mW) Laser	12.4438	0.097	0.54334	0.64 0.188
13 Diode Cluster laser 415mW	415	0.055	7.55	GaAlAs SLD LED	Seven 670 nm (10 mW) LED Three 850 nm (100 mW) Laser Three 950 nm (15 mW) SLD	6.2218	0.097	0.54334	1.12 0.136 0.48
13 Diode Cluster laser 715 mW	715	0.095	7.55	GaAlAs SLD LED	Seven 670 nm (10 mW) LED Three 850 nm (200 mW) Laser Three 950 nm (15 mW) SLD	12.4438	0.097	0.54334	1.12 0.1128 0.48
33 Diode Cluster laser 1440 mW	1440	0.046	31.2	GaAlAs SLD LED	Twelve 670 nm (10 mW) LED Eight 880 nm (25 mW) SLD Eight 950 nm (15 mW) SLD Five 850 nm (200 mW) Laser	12.4438	0.097	0.54334	1.92 1.28 1.28 0.06

LASER PROTECTIVE EYEWEAR TECHNICAL SPECIFICATIONS



Useful Range
Optical Density 5+.....190-400 nm
Optical Density 3+.....625-830 nm
Optical Density 3+.....815-1050 nm

Each unit is shipped with Laser Protective Eyewear. The eyewear is L3 rated and approved and EN207 compliant.

INSTALLING THE LASER INTERLOCK (DOOR INTERRUPT SWITCH)

The Laser Interlock is an optional safety device designed to interrupt Laser Light Therapy anytime the door to the the therapy room is opened. Contact only qualified electricians to install the Laser Interlock kit and have them refer to the wiring diagram below.

The Laser Interlock kit consists of a switch resistor and a jack. You must supply the necessary cable that complies with local and international codes.

⚠ DANGER

The Laser Interlock must be installed by a professional or qualified electrician. Serious eye injury can result if the device is not properly installed. Also, when installing the device for multiple doors, the resistance total may not exceed 4800 ohm.

Diagram for Therapy Room with One Door

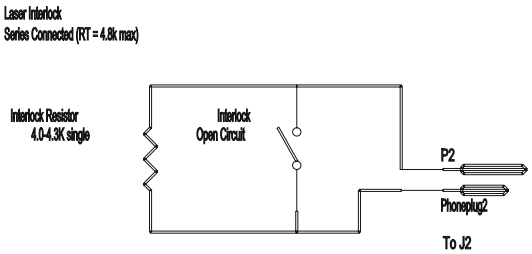
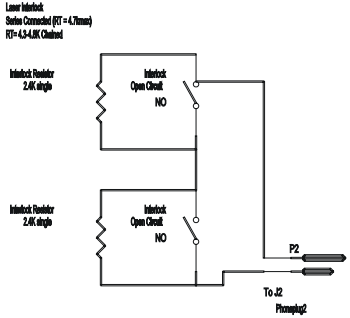


Diagram for Therapy Room with Multiple Doors



ATTACHING THE MODULE TO THE UNIT

⚠ WARNING

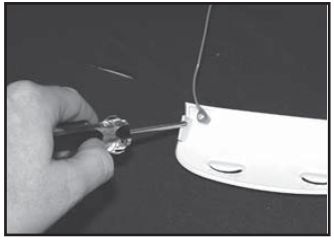
Disconnect the unit from the power source (electrical outlet or battery module) before attempting any maintenance, removal, or replacement procedures to prevent possible electrical shock and equipment damage. However, if you are disconnecting another module (e.g., battery), make certain you leave the ribbon cable plugged into the main unit.

To attach the module to the unit, do the following:

1. Disconnect the unit from the power source.
2. Remove the rear access panel and disconnect the power cord from the main unit.
3. Place the main unit on a level surface.

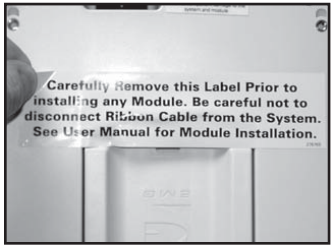
4. Remove the front access panel and disconnect all cables and wires.

ATTACHING THE MODULE TO THE UNIT (CONTINUED)



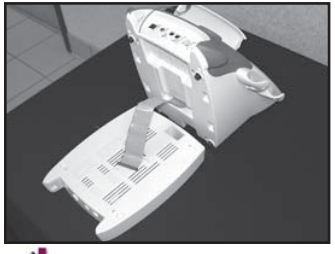
5. Using a #1 Phillips Screwdriver, remove the screw securing the plastic lanyard to the front access panel.

6. Turn the unit upside down and lay it flat on your lap or a covered surface so as not to scratch the plastic display lens.


Carefully Remove this Label Prior to
installing any Module. Be careful not to
disconnect Ribbon Cable from the System.
See User Manual for Module Installation.

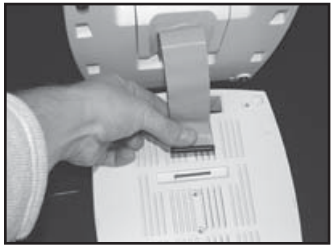
7. Remove the warning label covering the ribbon cable and unroll the ribbon cable. If the warning label has previously been removed, continue with the next step. If you are disconnecting another module, make certain you leave the ribbon cable plugged into the main unit.

   NOTE: If the unit is equipped with an sEMG Module, leave it in place to maintain sEMG functions for Channels 1 and 2. The sEMG Module will not interfere with installation of a module.



8. Rest the unit on its back behind the module.

ATTACHING THE MODULE TO THE UNIT (CONTINUED)



9. Align the holes on the female end of the ribbon cable to the pins on the module.

10. Using only your fingers, gently fit the female end of the ribbon cable to the connector pins of the module.

11. Make sure the fit is snug.

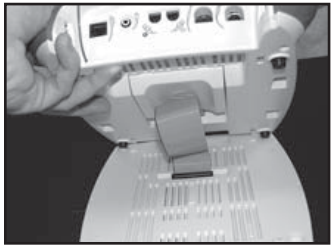
⚠ CAUTION

DO NOT TWIST THE RIBBON CABLE! Before proceeding with the next step, make certain the ribbon cable is not twisted. If the ribbon cable is twisted, the pins will not properly align. If the power is turned on with misalignment of pins or a twisted ribbon cable, the controlling electronics in the module will be destroyed and possible damage to the internal components will occur.

⚠ CAUTION

Be careful when fitting the cable to the pins. If any of the pins are damaged or broken, the performance and function of the module may be affected.

ATTACHING THE MODULE TO THE UNIT (CONTINUED)



12. Fit the rubber feet of the unit into the feet indentions on the module, and allow the unit to rest flush on the module.

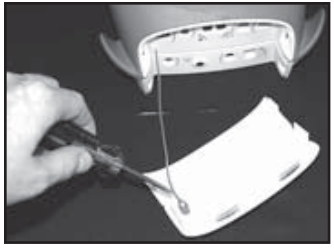
    NOTE: Make certain the ribbon cable is positioned exactly as shown in the picture on the left.

13. Turn the unit upside down and lay it flat on your lap or a covered surface so as not to scratch the plastic display lens. Using a #1 Phillips Head screwdriver, secure the module to the unit with the four screws (shipped with the module).

    NOTE: Tighten the screws only enough to prevent the unit from shifting on the unit. Do not over-tighten the screws.

14. Set the assembled unit upright on the work surface.

ATTACHING THE MODULE TO THE UNIT (CONTINUED)



15. Using a #1 Phillips Head screwdriver, secure the new extended front access panel to the lanyard.

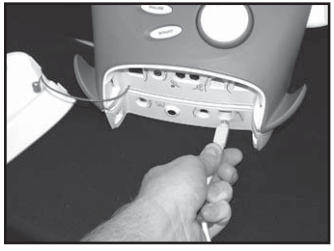
    NOTE: When securing the front access panel, make certain the lanyard does not become kinked.

16. Feed the female end of the power cord through the power cord routing area and plug it into the unit.

17. Replace the rear access panel.

18. Plug the male end of the power cord into an approved electrical outlet.

ATTACHING THE MODULE TO THE UNIT (CONTINUED)



19. Replace all cables and wires on the original unit.

20. Insert the patient interrupt switch, laser interlock (see page 21), and laser applicator in the proper connection. For more information about the symbols used for the connections, see pages 14-15.

21. Turn the unit on using the On/Off Switch.

    The system will automatically recognize the added module and display a configuration change message.

22. Read and carefully follow the instructions on the screen.

⚠ WARNING

Verify that the module installed is the module displayed in the message BEFORE pressing the START button. If it is not, DO NOT press the START button. Turn the system Off and back On. If the problem persists, call the dealer or Chattanooga Group Technical Support immediately. DO NOT USE THE SYSTEM until all necessary repairs are made by a technician certified by Chattanooga Group. If use is attempted before repairs are made, the system may operate unpredictably and has the potential of causing injury to the patient or damage to the system's internal components.

REMOVING THE MODULE FROM THE UNIT

To remove a module from the main unit, do the following:

1. Disconnect the unit from the electrical outlet.
2. Remove the rear access panel and disconnect the power cord from the main unit.
3. Remove the extended front access panel and disconnect all cables and wires.
4. Route the Power Cord through the Power cord routing area on the Module to the unit.
5. Replace the Rear Panel.
6. Using a #1 screwdriver, remove the four screws that are securing the module. Retain the screws for future use.
7. Remove the module from the unit.
8. Using only your fingers, gently remove the female end of the ribbon cable from the connector pins of the module.
9. Leave the ribbon cable connected to the main unit.

PREPARING THE PATIENT'S SKIN

Before applying laser light therapy to the patient, you must first prepare the patient's skin. By properly preparing the patient's skin for laser light therapy, you will allow more laser energy to reach the targeted areas and reduce the risk of skin irritation.

To prepare the patient's skin for laser light therapy, do the following:

1. Thoroughly wash the skin on which you intend to place the laser head with mild soap and water or alcohol wipe.
2. Dry the skin thoroughly.

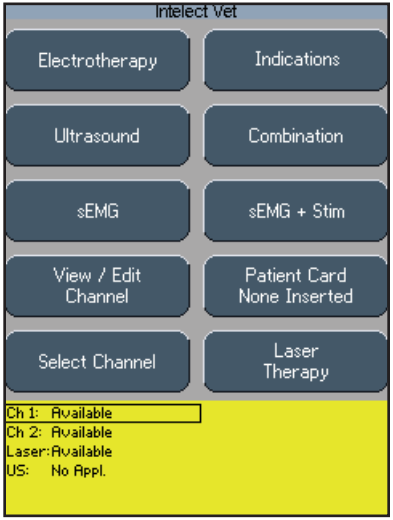
⚠ WARNING

Before each use, clean the plastic lens with NOVUS® Polish System. Contact Novus at: novuspolish.com. Make certain to apply with a clean cloth. Failure to clean the lens between patient therapy sessions could cause laser light beam fragmentation, which may reduce the effectiveness of the treatment.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY

The Operator Interface consists of buttons with a liquid crystal display (LCD). The operator is able to view parameter options on the display and make selections by pressing the buttons on the Operator Interface. The LCD will provide continuous information during the treatments concerning dosage and elapsed time. Parameters are adjusted using Operator Interface buttons on the front of the unit. The output can be stopped by pressing the "PAUSE" or "STOP" buttons located on the Operator Interface.

To administer laser light therapy to a patient, make certain you have performed the necessary steps listed in "Preparing the Patient's Skin" on page 29. Then, continue with the following procedures:



1. On the Main window, press the button next to Laser Light Therapy.

   The Laser PIN window displays.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)

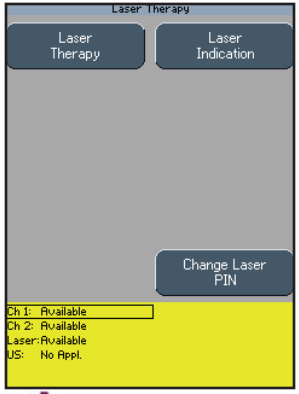
2. 1 1 1 1 is the default PIN. Press the button next to the number 1 four times so that * * * * displays briefly.

   The Laser Therapy window displays.

   If you begin to enter the wrong PIN, you can press the button next to Clear PIN to try again.

   For information on changing the PIN, see pages 44-46.

   NOTE: If you lose or forget your PIN, contact Chattanooga Group Service Department at (866) 864 0598-or (423) 870-2281.

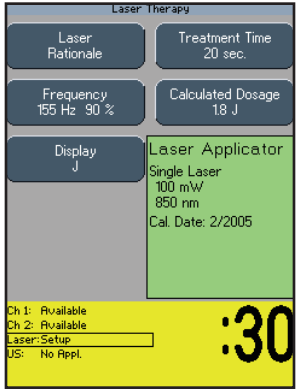


3. Press the button next to Laser Therapy.

   The message "Reading Protocol Please Wait . . . " displays.

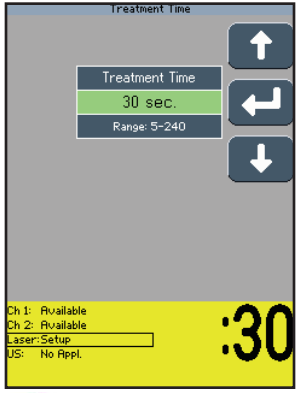
   The next Laser Therapy window displays.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)



4. Press the button next to Treatment Time.

   The Treatment Time window displays.

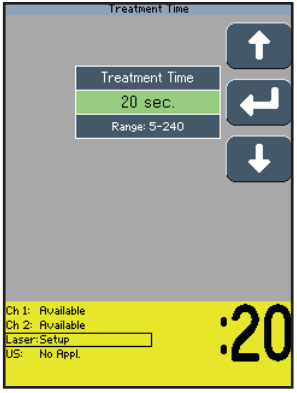


5. Press the button next to the icon to increase the number of seconds for the treatment time. Hold the button down to quickly increase the treatment time.

   NOTE: The Treatment Time and the Calculated Dosage are directly correlated. Whenever Treatment Time is changed, the Calculated Dosage is automatically changed and reflected on the Laser Parameters window.

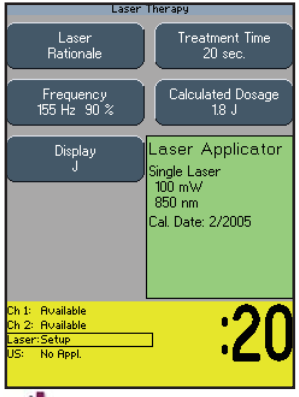
6. Press the button next to the icon to decrease the number of seconds for the treatment time. Hold the button down to quickly decrease the treatment time.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)



7. Press the button next to the ↵ icon to accept the treatment time you selected.

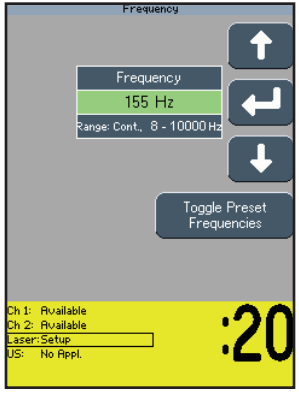
   You are returned to the Laser Parameters window. Notice that if you changed the Treatment Time, the Calculated Dosage automatically changed.

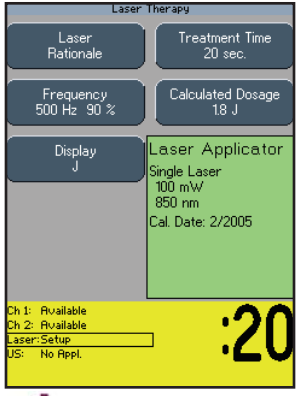


8. Press the button next to Frequency.

   The Frequency window displays.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)





9. Press the button next to Toggle Preset Frequencies repeatedly to scroll through commonly used frequencies.

10. Press the button next to the icon to increase the frequency in 1 Hz increments.

    Hold the button down to quickly display higher frequencies.

11. Press the button next to the icon to decrease the frequency in 1 Hz increments.

    Hold the button down to quickly display lower frequencies.

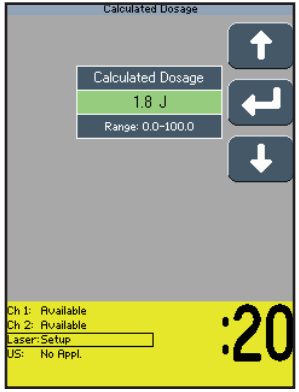
12. Press the button next to the icon to accept the frequency you selected.

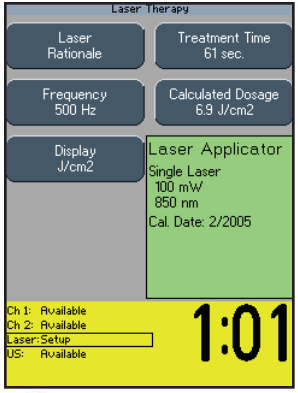
    You are returned to the Laser Parameter window with the new Frequency displayed.

13. Press the button next to Calculated Dosage.

    The Calculated Dosage window displays.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)





14. Press the button next to the icon to increase the dosage. Hold the button down to quickly increase the dosage.

    NOTE: The Calculated Dosage and the Treatment Time are directly correlated. Whenever Calculated Dosage is changed, the Treatment Time is automatically changed and reflected on the window.

15. Press the button next to the icon to decrease the dosage. Hold the button down to quickly decrease the dosage.

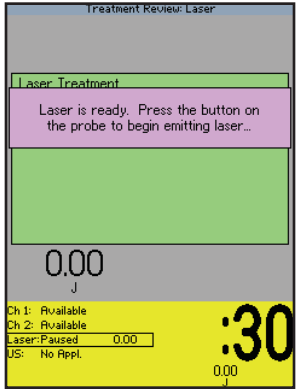
16. Press the button next to the icon to accept the dosage you selected.

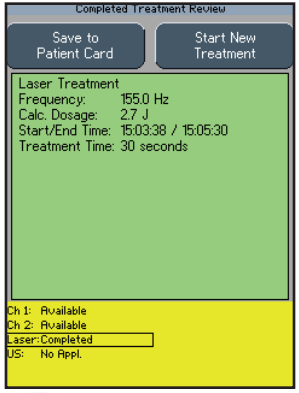
    You are returned to the Laser Parameters window. Notice that if you changed the Calculated Dosage, the Treatment Time automatically changed.

17. Press the button next to Display to change the displayed unit of measure from either Joules (J) or Joules per centimeters squared (J/cm^2).

    The window will refresh and the new designation will display.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)





18. Press the START button. A message displays to alert you to the fact that the laser is armed. The unit will beep two times to count down the number of seconds left until the applicator is ready. After the countdown, press the Pause/Resume button to begin the treatment.

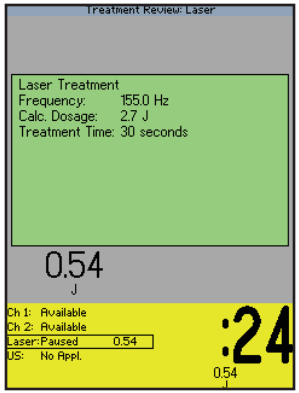
    After you press the Pause/Resume button, an orange light will illuminate on the back of the laser applicator to indicate that laser output is being distributed.

    NOTE: When treatment time has expired, a tone will sound.

    The therapy can be interrupted at any time by pressing the Pause/Resume button on the back of the applicator, the STOP button (on the Operator Interface), or the PAUSE button (on the Operator Interface).

    When the STOP button is pressed, the applicator stops emitting laser light energy, and the Completed Treatment Review window displays. Press the button next to Start New Treatment to begin a new therapy session (refer to step 2 on page 31), or press Save to Patient Card to transmit the parameters of the treatment to the patient card. For more information on the Save to Patient Card option, see the unit's user manual.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)

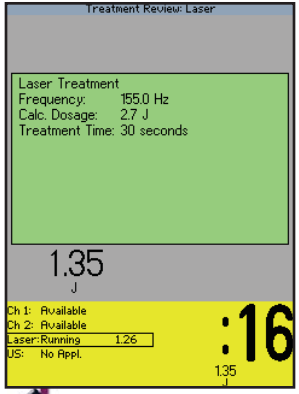


When either the PAUSE button on the Operator Interface or the Pause/Resume button on the back of the applicator are pressed, the following occurs:

- the timer pauses
- the unit beeps once
- "Paused" is displayed on the laser status indicator
- the laser applicator stops emitting laser energy
- the orange light goes out

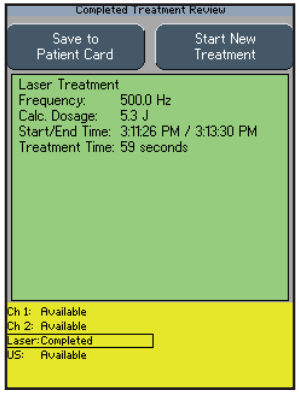
To resume therapy, press the PAUSE button on the Operator Interface, the Pause button on the back of the laser applicator, or the START button.

When the treatment timer reaches zero, the Treatment Review Laser window displays.



19. To resume the same therapy session, press the Pause/Resume button on the back of the laser applicator or the START button.

STARTING, STOPPING, AND INTERRUPTING LASER LIGHT THERAPY (CONTINUED)



20. To finish the laser light therapy, press the STOP button.

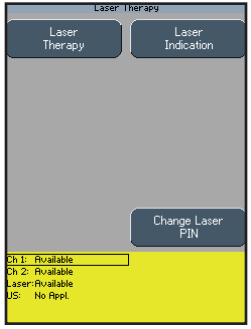
    The Completed Treatment Review window displays.

21. Press the button next to Start New Treatment to begin a new therapy session (refer to step 2 on page 31). Or, press Save to Patient Card to transmit the parameters of the treatment to the patient card. For more information on the Save to Patient Card option, see the unit's user manual.

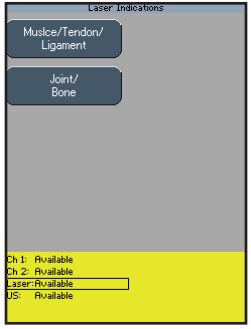
    NOTE: Between therapy sessions, touch the laser head to see if it is warm. If it is warm, allow it to cool before the next therapy session.

USING CLINICAL INDICATIONS

The indications contained in this section are to be used only as guidelines. Each patient should be individually assessed to determine the appropriateness of the parameter setting prior to use. To select an indication for a patient, do the following:

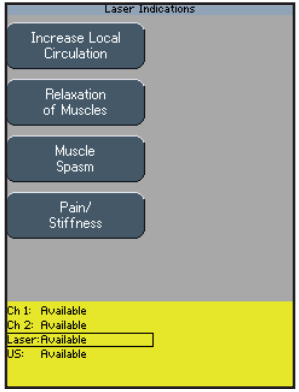


1. On the Laser Therapy window, press the button next to Laser Indication.
   The Laser Indications window displays.



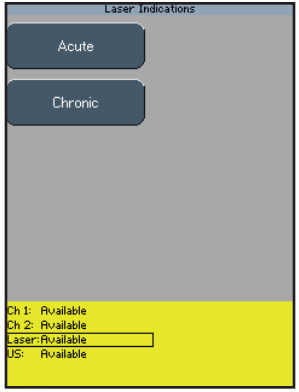
2. On the Laser Indications window, press the button next to the tissue you intend to treat.
   The next Laser Indications window displays.

USING CLINICAL INDICATIONS (CONTINUED)



3. Press the button next to the symptom you intend to treat.

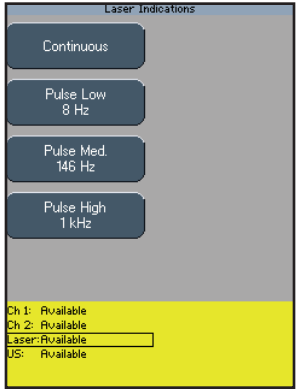
   The next Laser Indications window displays.



4. If the indication you require has an available severity, select either Acute or Chronic. If the indication you require does not have a severity, continue with the next step.

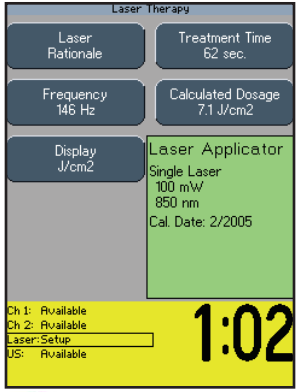
   The next Laser Indications window displays.

USING CLINICAL INDICATIONS (CONTINUED)



5. Press the button next to the appropriate frequency.

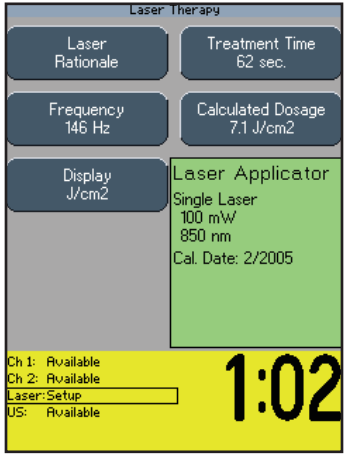
   The Laser Therapy window displays. The parameters of the indication are displayed on the window.



6. If necessary, make any parameter changes or adjustments.
7. To begin therapy, continue with the instructions outlined in the section entitled "Preparing the Patient's Skin" on page 29.
8. To save these parameters as a new user protocol, continue with the next section entitled "Creating a User Protocol."

CREATING A USER PROTOCOL

The Vectra Genisys Laser Module allows you to tailor a protocol according to the requirements of a patient. To save a laser indication, do the following:



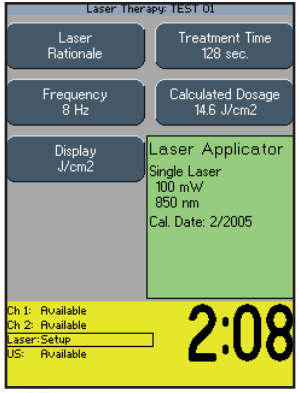
1. Complete steps 1 through 6 of the previous section entitled "Using Clinical Indications."
2. While the Laser Therapy window is displayed, press the button (Clinical Resources Library button) on the user interface.

   The Create a User Protocol window displays.
3. Use the buttons on the first three rows to enter a name for the indication,

   pressing the button after each letter or number.

CREATING A USER PROTOCOL (CONTINUED)

Protocol Name: TEST-01
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z
2 3 4 5 6 7 8 9 0 . : - ( )
Press the BACK button to cancel entry.
Delete
Save
Ch 1: Available
Ch 2: Available
Laser: Setup
US: No Appl.
4:00



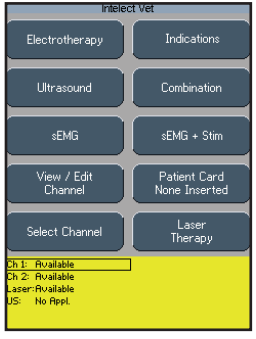
4. When you have finished entering the name of the protocol, press the button next to Save.

   The message "Saving Protocol Please Wait" displays. You are returned to the Laser Therapy window with the parameters of the indication you just saved displayed, as well as the name of the indication.

SYSTEM UTILITIES

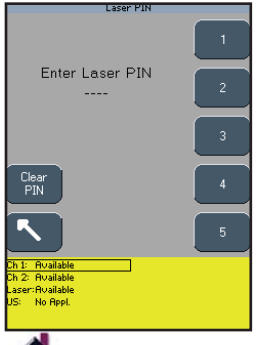
Changing the Laser PIN

To change the PIN, do the following:



1. On the Main window, press the button next to Laser Therapy.

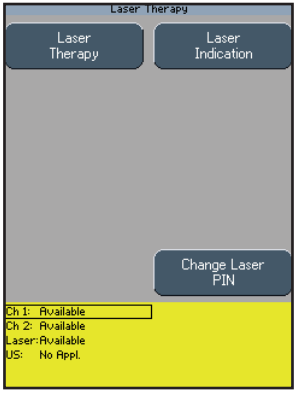
   The Laser PIN window displays.



2. 1 1 1 1 is the default PIN. Press the button next to the number 1 four times so that * * * * displays briefly. If you begin to enter the wrong PIN, you can press the button next to Clear PIN to try again.

   The Laser Therapy window displays.

SYSTEM UTILITIES (CONTINUED)



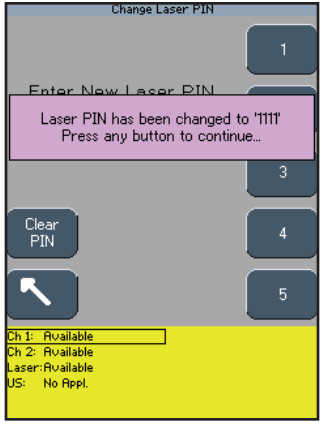
3. Press the button next to Change Laser PIN.

   The Change Laser PIN window displays.

4. Press the buttons next to the numbers to which you want to change the PIN.

   Once you enter four numbers, a message displays to inform you of the new PIN.

SYSTEM UTILITIES (CONTINUED)



5. Press any button to continue.

   You are returned to the Laser Therapy window.

TREATMENT TIPS

Contact
To obtain the most effective results, the applicator should be in contact with the patient's skin.

Applicator Position
Due to the characteristics of laser light, the angle at which the light enters the patient's skin is very important. Therefore, the applicator lens should always be parallel to the treatment area.

Treating Joints
If you are applying laser light therapy to a patient's joint, it is more effective to apply the laser energy into the joint by positioning the joint in an open position (e.g., knee in flexion). However, do not attempt this method if it is uncomfortable to the patient.

Applicator Selection
If the injury you intend to treat is very small (pinpoint), you should only need to treat the area with a single diode applicator. If the area surrounding the treatment area is sensitive, it is recommended that you apply laser light therapy with a single diode applicator first, then use the cluster applicator for the surrounding area.

Cold and Heat
If you intend to apply cold or heat in conjunction with laser light therapy, use the following guidelines:

- Use cold before laser light therapy. This slows the flow of red blood cells and reduces the amount of energy removed from the area.
- Use heat after the treatment. This speeds the flow of red blood cells so that more energy can be removed from the area.

Standard Accessories

Ref.	Description
28069	User Manual (CD-ROM)
27525	Laser Protective Eyewear
27325	Power Supply Cord (US) [18 AWG, 80 in (203.2 cm), Shielded]

Optional Accessories

Ref.	Description
27805	Single Diode 820 nm Laser 300 mW Applicator [26 AWG, 68.89 in (174.143 cm), Shielded]
27840	Single Diode 850 nm Laser 100 mW Applicator [26 AWG, 68.89 in (174.143 cm), Shielded]
27804	Single Diode 850 nm Laser 150 mW Applicator [26 AWG, 68.89 in (174.143 cm), Shielded]
27841	Single Diode 850 nm Laser 200 mW Applicator [26 AWG, 68.89 in (174.143 cm), Shielded]
27811	9 Diode Applicator 540 mW [26 AWG, 68.89 in (174.143 cm), Shielded]
27812	9 Diode Applicator 1040 mW [26 AWG, 68.89 in (174.143 cm), Shielded]
27814	13 Diode Applicator 415 mW [26 AWG, 68.89 in (174.143 cm), Shielded]
27816	13 Diode Applicator 715 mW [26 AWG, 68.89 in (174.143 cm), Shielded]
27808	33 Diode cluster Applicator 1440 mW [26 AWG, 68.89 in (174.143 cm), Shielded]
27478	Battery Pack
27904K	Laser Interlock Kit
27468	Carrying Bag
27470	Patient Interrupt Switch [26 AWG, 68.89 in (174.143 cm), Shielded]

ERROR MESSAGES

CODE NUMBER	TYPE MESSAGE	PROBABLE CAUSES	POSSIBLE REMEDIES
130	Warning	Another treatment is running while attempting to set up and perform treatment.	A. Allow existing treatment to complete before starting therapy. B. If no other treatment is running, reset Therapy System by turning main power switch Off and On.
131	Warning	Treatment Room Door Lockout is breached.	A. Make certain Treatment Room Door is completely closed. B. Make certain the Laser Interlock cable is connected to the system. C. Replace Laser Interlock to System cable with a known good cable. D. Contact department responsible for installation of the Treatment Room Door Laser Interlock Kit for maintenance or repair. E. Send Laser Module to Factory for Service.
132	Warning	Attempted to start a laser treatment but no laser applicator is plugged in.	A. Connect desired Laser Applicator to the system. B. If Applicator is connected, reset Therapy System by turning main power switch Off and On. C. Connect a known good Laser Applicator. D. Send Laser Module to Factory for Service.

ERROR MESSAGES (CONTINUED)

CODE NUMBER	TYPE MESSAGE	PROBABLE CAUSES	POSSIBLE REMEDIES
133	Warning	Laser Applicator became unplugged while performing a laser treatment	A. Connect desired Laser Applicator to the system. B. If Laser Applicator is connected, reset Therapy System by turning main power switch Off and On. C. Connect to a calibrated Laser Applicator. D. Send Laser Module to Factory for Service.
134	Warning	Entered incorrect laser PIN.	Enter correct Laser PIN number.
139	Warning	Laser Board Software upgrade warning.	Contact Chattanooga Group Service Department.
142	Warning	A User Protocol was selected but no Laser Module is installed on system.	Install Laser Module to Therapy System. Refer to Laser User Manual (pages 21-27) for installation Instructions
143	Warning	A User Protocol was selected but no Laser Applicator connected to system.	A. Connect proper Laser Applicator to the system. B. If Laser Applicator is connected, reset Therapy System by turning main power switch Off and On. C. Connect a known good Laser Applicator. D. Send Laser Module to Factory for Service.

ERROR MESSAGES (CONTINUED)

CODE NUMBER	TYPE MESSAGE	PROBABLE CAUSES	POSSIBLE REMEDIES
144	Warning	Wrong Laser Applicator connected to system for the protocol selected.	A. Connect correct Laser Applicator to the system. B. If Applicator is connected, reset Therapy System by turning main power switch Off and On. C. Connect to a calibrated Laser Applicator. D. Send Laser Module to Factory for Service.
214	Error	General Laser PC Board Error.	Send Laser Module to Factory for Service.
215	Error	Laser Applicator out of calibration due to laser output being too high.	Send Laser Applicator to Factory for Service.
216	Error	Laser Applicator out of calibration due to laser output being too low.	Send Laser Applicator to Factory for Service.
217	Error	Laser Applicator out of Calibration due to LED output being too high.	Send Laser Applicator to Factory for Service.
218	Error	Laser Applicator out of Calibration due to LED output being too low.	Send Laser Applicator to Factory for Service.

Maintaining the Vectra Genisys Laser Module

The following items should be checked at least monthly to ensure proper operation of this unit:

- Power cord and plug: Check to make sure the cord is not frayed, kinked, and does not have torn or cut insulation.
- Applicator cable: Check to make sure the cable is flexible, free of kinks, not frayed, and the insulation is intact.
- Applicator lens: Check to see that there is no build-up of oil or foreign material on or behind the applicator lens.

⚠ WARNING

Before each use, clean the plastic lens with NOVUS® Polish System (www.novuspolish.com). Make certain to apply with a clean cloth. Failure to clean the lens between patient therapy sessions could cause laser light beam fragmentation, which may reduce the effectiveness of the treatment.

Cleaning

To clean the accessories, use only soap and water.

The Vectra Genisys Laser Module's case may be cleaned by wiping with a damp cloth or mild cleaning solution. Avoid abrasive cleansers.

Service

The Vectra Genisys Laser Applicator must be recalibrated annually. Chattanooga Group laser products must be returned to the factory or an authorized servicing dealer for repairs or recalibration. Should the Vectra Genisys Laser unit require service, contact the selling dealer or Chattanooga Group Service Department.

All units returned to the factory for service must include the following:

WARRANTY REPAIR/OUT OF WARRANTY REPAIR

1. Written statement containing the following information:
    - Return Authorization (RA) Number- Obtain from Factory
    - Unit Model Number
    - Unit Serial Number
    - Contact person with Phone and Fax Numbers
    - Billing Address (for Out of Warranty Repair)
    - Shipping Address (Where to Ship Unit after Repair)
    - Detailed Description of Problem or Symptoms
2. Copy of original invoice issued at purchase of the unit.
3. Ship the unit to address specified by an authorized service technician.

Service to these units should be performed only by Service Technicians certified by Chattanooga Group. Laser requires annual calibration, from the date placed in service, by a Service Technician certified by Chattanooga Group.

Through the purchase of a Service Manual, Chattanooga Group has made available circuit diagrams, component part lists, descriptors, or other information which will assist authorized technical personnel to repair those parts of the equipment which are designated by Chattanooga Group as repairable.

NOTE: The unit was calibrated during the manufacturing process and is ready to be placed into service upon delivery.

Council Directive 2002/96/EC concerning Waste Electrical and Electronic (WEEE). Indicates a requirement not to dispose of WEEE as municipal waste. Contact your local distributor for information regarding disposal of the unit and accessories.

WARRANTY

Chattanooga Group, a division of Encore Medical, L.P. ("Company"), warrants that the Vectra Genisys® Laser Module ("Product") is free of defects in material and workmanship. This warranty shall remain in effect for two years (24 months) from the date of original consumer purchase. If this Product fails to function during the two year warranty period due to a defect in material or workmanship, at the Company's option, the Company or the selling dealer will repair or replace this Product without charge within a period of thirty days from the date on which the Product is returned to the Company or the dealer. All repairs to the Product must be performed by a service center certified by the Company. Any modifications or repairs performed by unauthorized centers or groups will void this warranty.

The warranty period for applicators is one year (12 months).

This Warranty Does Not Cover:

- ANY MALFUNCTION OR FAILURE IN THE PRODUCT CAUSED BY PRODUCT MISUSE, INCLUDING, BUT NOT LIMITED TO, DROPPING THE UNIT OR APPLICATOR AND FAILURE TO PROVIDE REASONABLE AND NECESSARY MAINTENANCE OR ANY USE THAT IS INCONSISTENT WITH THE PRODUCT USER MANUAL.
- Replacement parts or labor furnished by anyone other than the Company, the selling dealer or a certified Company service technician.
- Defects or damage caused by labor furnished by someone other than Company, the selling dealer or a certified Company service technician.

COMPANY SHALL NOT BE LIABLE IN ANY EVENT FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. To Obtain Service From Company or the selling dealer under this warranty:

1. A written claim must be made within the warranty period to the Company or the selling dealer. Written claims made to the Company should be sent to:

   4717 Adams Road
   P.O. Box 489
   Hixson, TN 37343 U.S.A.
   Telephone:
   1-423-870-2281 U.S.A.
   1-800-592-7329 U.S.A.
   1-800-366-6661 CANADA
   1-423-875-5497 U.S.A. FAX

   and

2. The Product must be returned to the Company or the selling dealer by the owner.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state or location to location.

The Company does not authorize any person or representative to create for it any other obligation or liability in connection with the sale of the Product. Any representation or agreement not contained in the warranty shall be void and of no effect.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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